

Figure 1

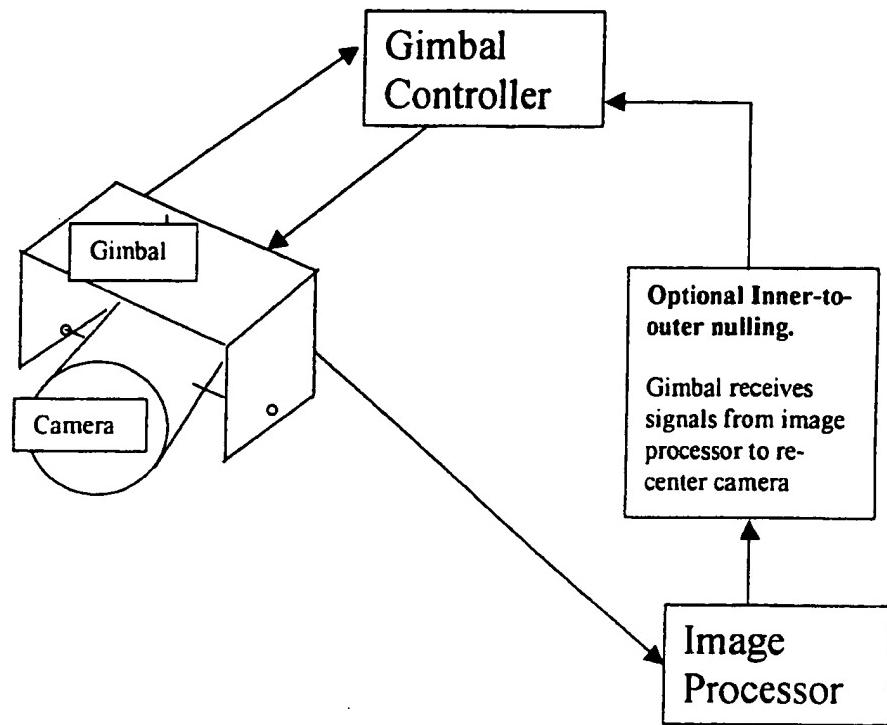


Figure 2

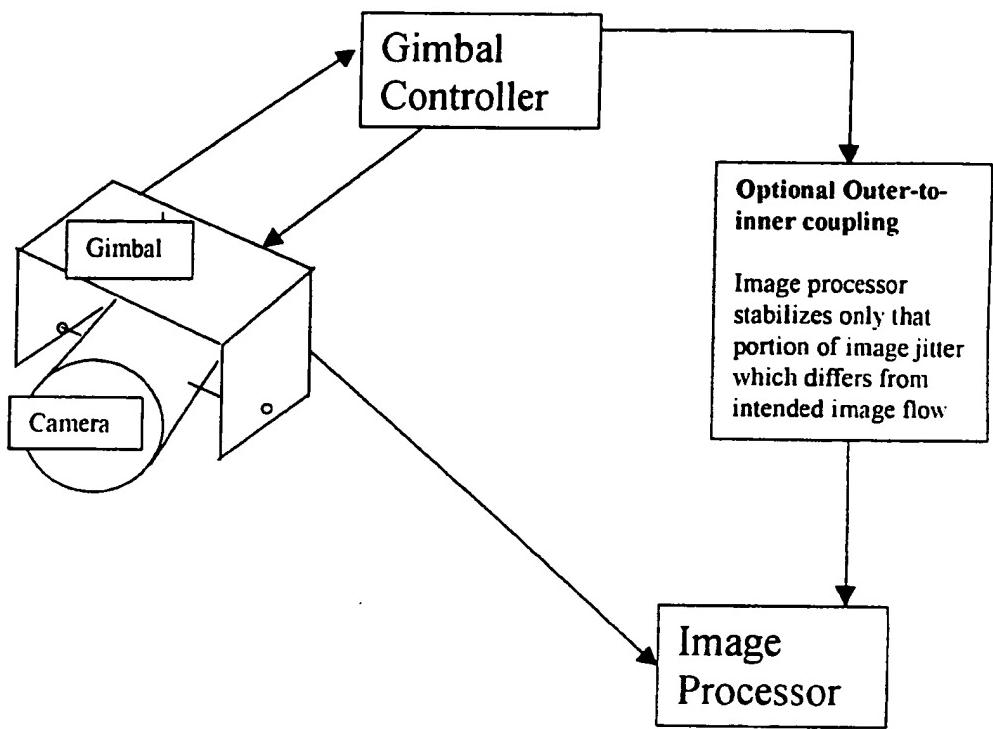


Figure 3

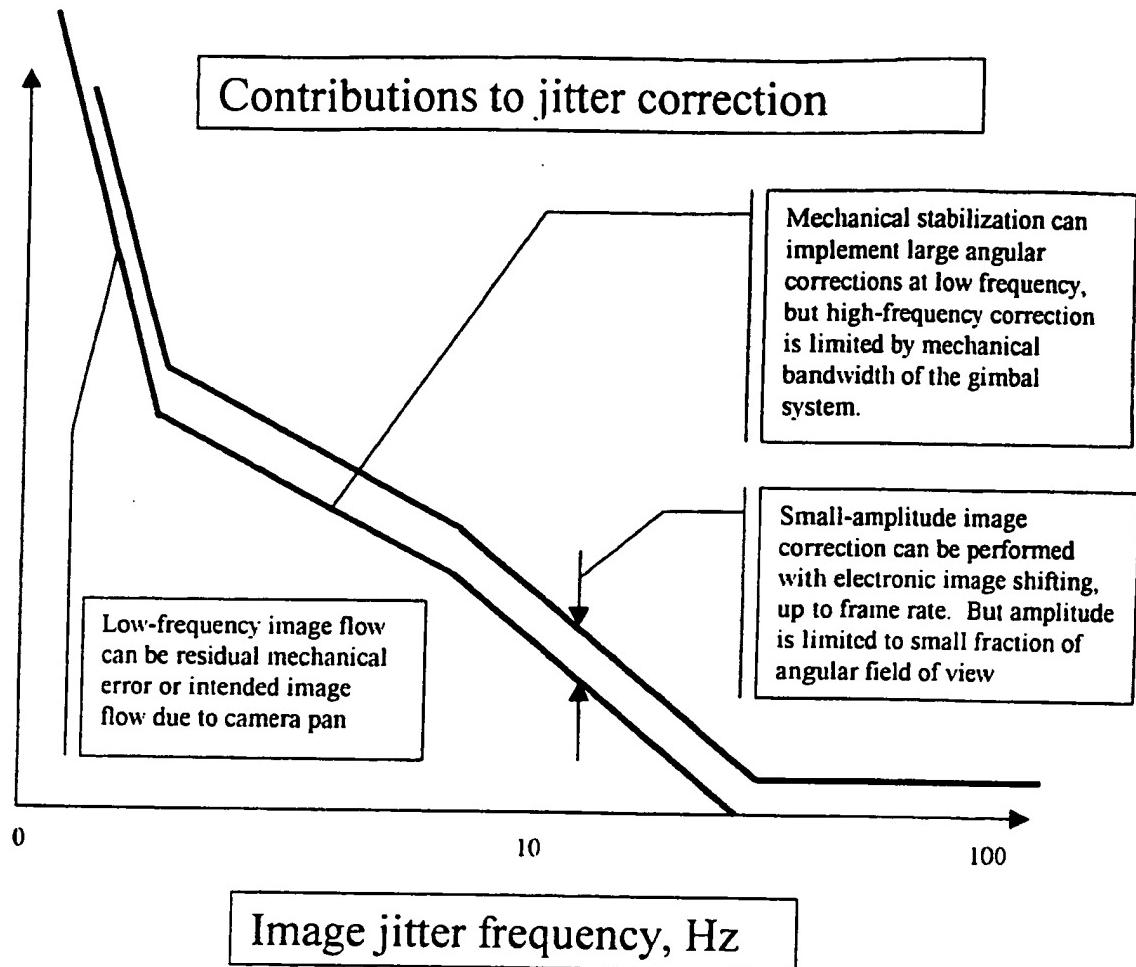
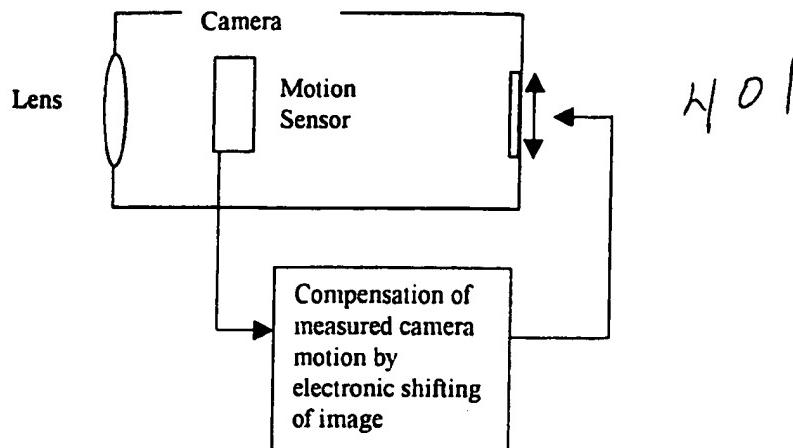


Figure 4A

Electronic Stabilization from Measured Camera Motion



Electronic Stabilization by Image Analysis

402

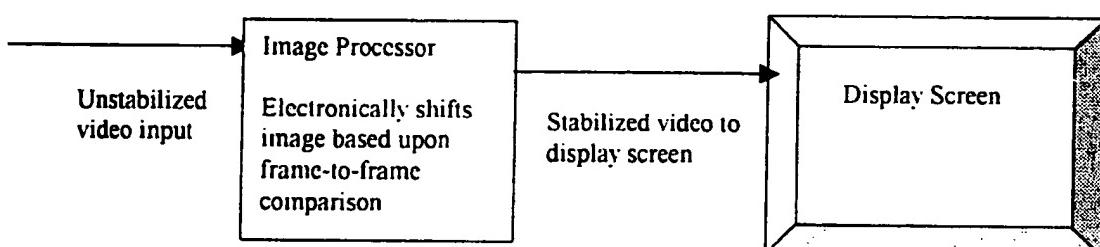


Figure 4B

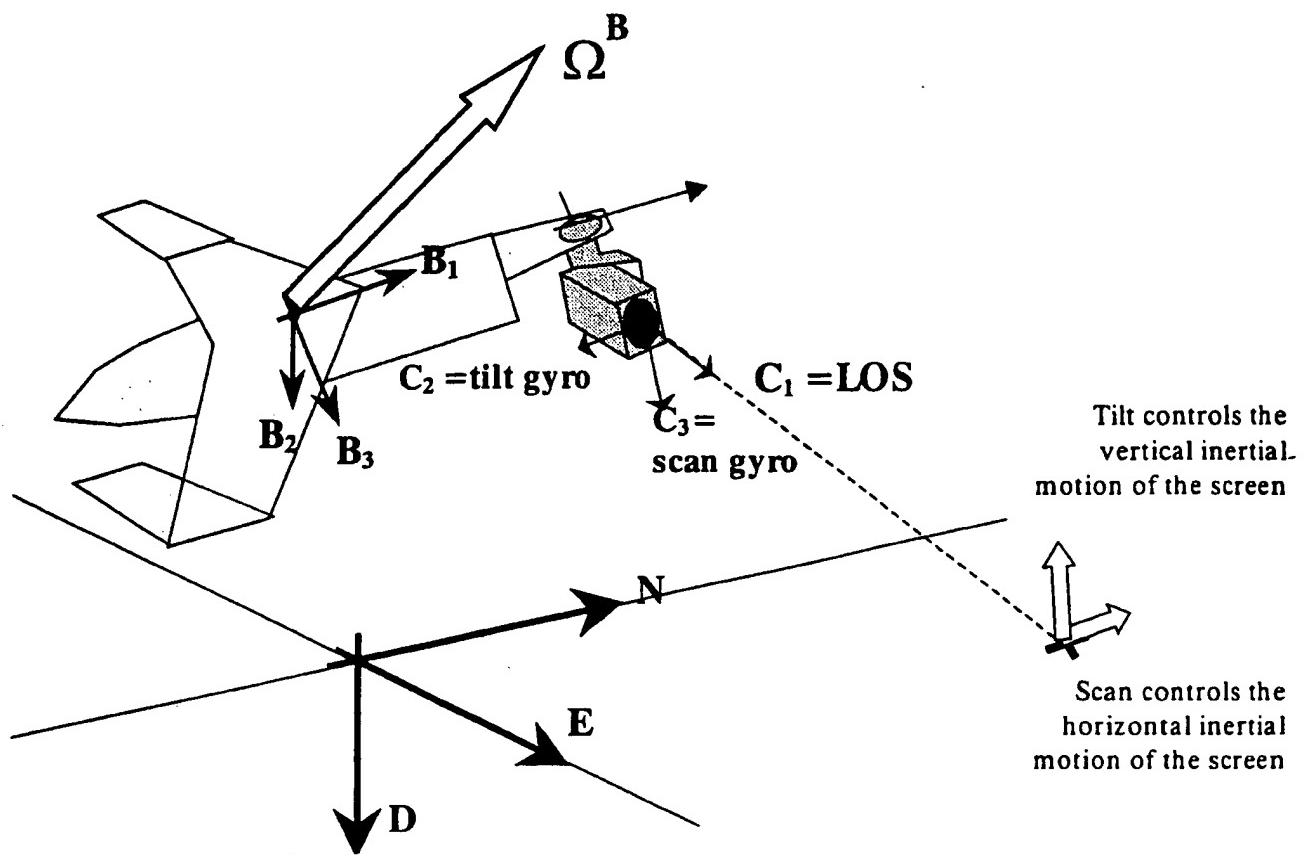
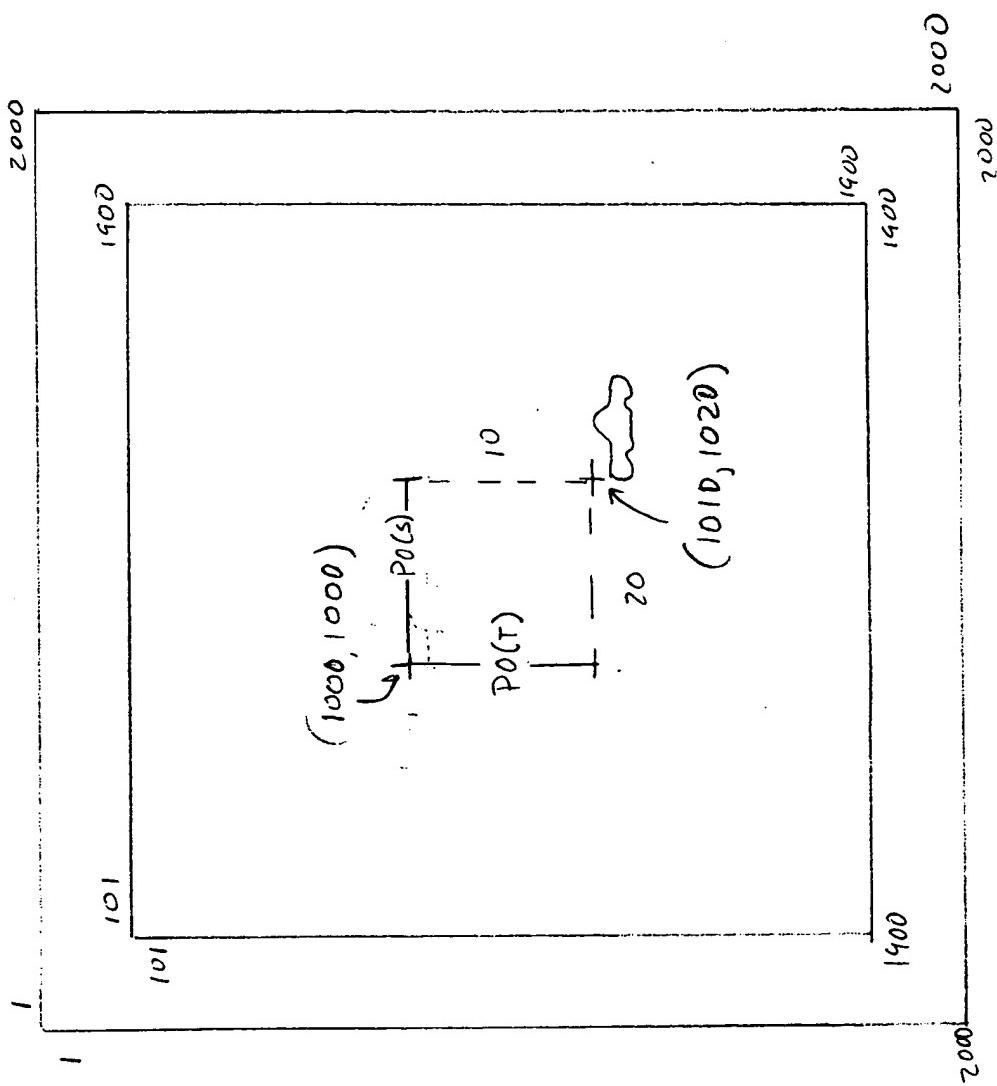


Figure 5

Fig. 6



Stabilize
System

701

Analyze image
to calculate
(IPO)

702

Adjust PO
Velocity
(VPO)

703

$P_0(s) =$
 $IPO(s) +$
 $VPO(s)$

704

$P_0(T) =$
 $IPO(T) +$
 $VPO(T)$

705

display stabilized
image

706

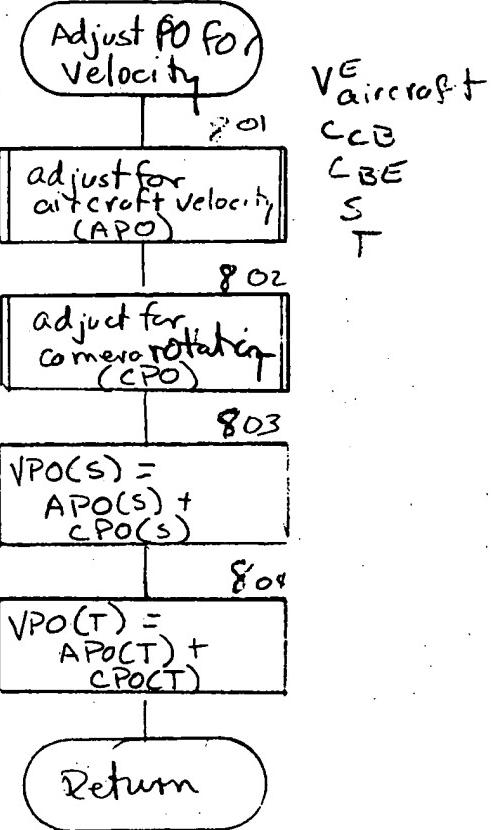
adjust for
image analysis
(A)

707

send $A(s)$ and
 $A(T)$ to gimbal
controllers

Return

F.87



$V^E_{aircraft}$
 CCB
 CBE
 S
 T

Fig 8

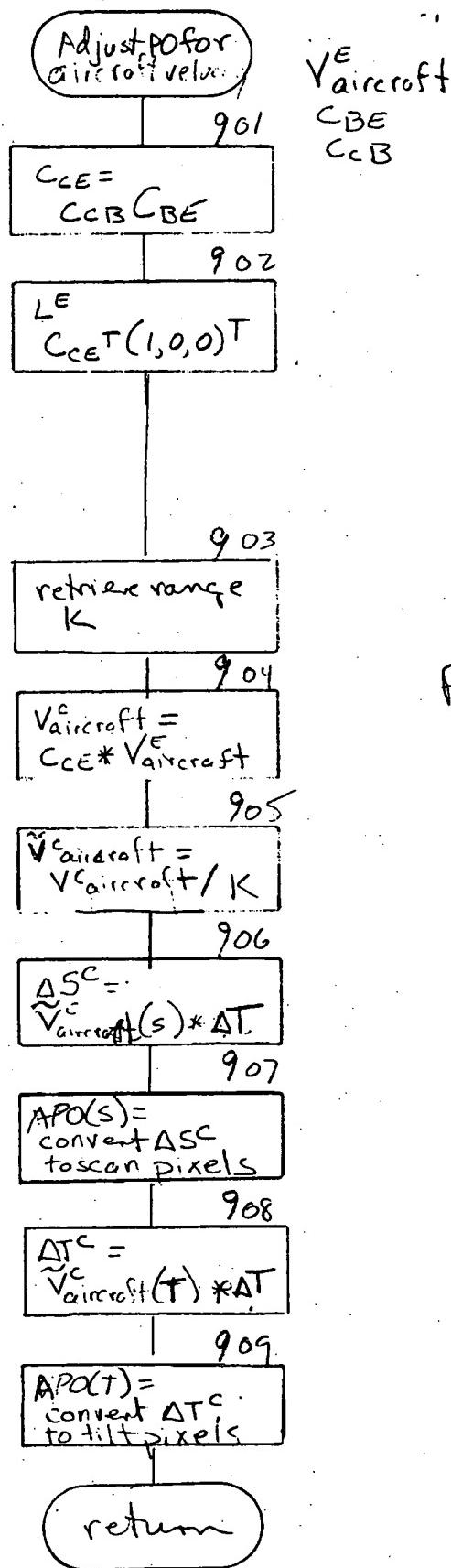
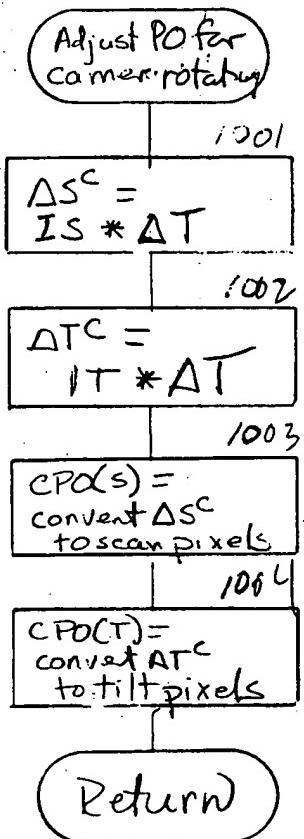


Fig 9



S
T

Fig 10

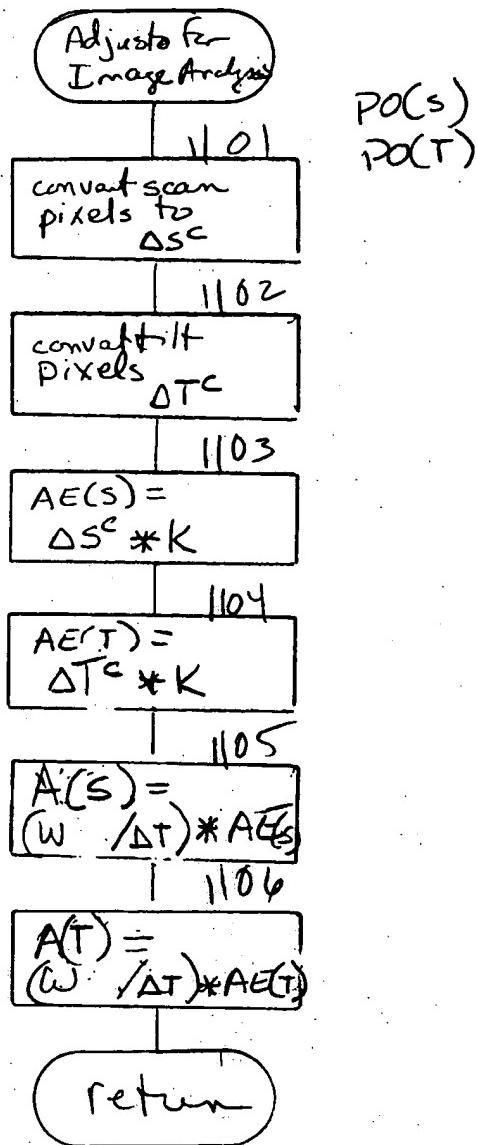


Fig 11